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# AMENDED SPECIFICATION.

Reprinted as amended in accordance with the decision of the Assistant Comptroller, acting for the Comptroller-General, dated the 24th day of February, 1930.

## PATENT SPECIFICATION

315,189

Application Date: Jan. 26, 1929. No. 2762/29.

Complete Left: March 6, 1929.

Complete Accepted: July 11, 1929.

## PROVISIONAL SPECIFICATION.

### Improvements in or relating to Piston Valves.



I, Sir JOHN DEWRANCE, G.B.E., of 165, Great Dover Street, Southwark, in the County of London, a subject of the King of Great Britain, do hereby declare the nature of this invention to be as follows:—

The present invention relates to piston valves intended for operation by hand and has for its object more particularly to facilitate the removal of the packing employed in such valves.

The invention consists in the provision of engagement means between the piston and the packing whereby, on removal of the piston from the valve body, the packing is withdrawn with it. In valves of this type the packing very generally comprises two cylindrical sections surrounding the piston and separated by a distance piece, and for the purpose of the invention an extension of the piston may be provided with one or more projections or with a flange adapted to engage with the cylindrical section more remote from the piston spindle or with a metal ring interposed between this section and the portion of the valve body on which it normally rests. Thus, if the piston be removed from the valve body by the opening through which its operating

spindle passes, the flange or the like on the extension of the piston comes into contact with the above mentioned cylindrical packing section or with the metal ring on which it rests, and hence the packing, with the ring, the distance piece and the further section of the packing in greater proximity to the operating spindle, are withdrawn with the piston. Any suitable means may be adopted to facilitate such withdrawal, but in the case of valves provided with a gland-nut a recess may conveniently be formed in the bush through which the operating spindle screws, a U-shaped bar or the like being adapted to engage with this recess so that, on the gland-nut being unscrewed, it bears on the U-shaped bar and serves to withdraw the bush, together with the piston and the packing with its auxiliary parts, as one unit, which may then be conveniently dismantled.

Dated this 26th day of January, 1929.  
HASELTINE, LAKE & Co.,  
28, Southampton Buildings, London,  
England, and  
19—25, West 44th Street, New York,  
U.S.A.,  
Agents for the Applicant.

## COMPLETE SPECIFICATION (AMENDED).

### Improvements in or relating to Piston Valves.

I, Sir JOHN DEWRANCE, G.B.E., of 165, Great Dover Street, Southwark, in the County of London, a subject of the King of Great Britain, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to piston valves intended for operation by hand  
[Price 1/-]

of the type in which the valve packing, although in normal operation fixed with respect to the valve casing, is adapted to be removed with the valve-closing member.

The invention consists in the provision of engagement means between the piston and the packing whereby, on continuing the movement of the piston in the direction for opening the valve beyond the

normal full-open position, the packing is withdrawn with the piston.

In order that the invention may be clearly understood and readily carried into effect it will now be described more fully with reference to the accompanying drawing, which illustrates, by way of example, one form of piston valve in accordance with the invention, and in which:—

Figure 1 shows the valve in longitudinal section and

Figures 2 and 3 are respectively elevation and plan of an auxiliary device to assist in the removal of the piston.

In the valve illustrated in Figure 1 the packing comprises two cylindrical sections 1 and 2 surrounding the piston 3 and separated by a distance piece or cage 4, and, for the purpose of the invention, an extension 5 of the piston 3 is provided with one or more projections or with a flange 6 adapted to engage with the packing section 2 or, as shown, with a metal ring 7 interposed between this section and the portion of the valve body 8 on which it normally rests. Thus, if the piston be removed from the valve body by the opening 9 through which its operating spindle 10 passes, the flange 6 or the like on the extension 5 comes into contact with the cylindrical packing section 2 or with the metal ring 7 and hence the packing sections 1 and 2, with the ring 7 and the distance piece 4, are withdrawn with the piston. Any suitable means may be adopted to facilitate such withdrawal, but in the case of valves of the type depicted provided with a gland-nut 11 a recess 12 may conveniently be formed in the bush 13 through which the operating spindle 10 screws, a U-shaped bar or the like, 14 such as shown in Figures 2 and 3, being adapted to be inserted in this recess so that, on the gland-nut 11 being

unscrewed, it bears on the bar 14 and serves to withdraw the bush 13, together with the piston 3 and the packing with its auxiliary parts, as one unit, which may then be conveniently dismantled.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that I am aware of the Specification of Letters Patent No. 303,770 granted to Harold Lyall Mason, and I make no claim to anything described or claimed therein, but what I claim is:—

1. A piston valve of the type set forth provided with engagement means between the piston and the packing whereby, on continuing the movement of the piston in the direction for opening the valve beyond the normal full-open position, the packing is withdrawn with the piston.

2. A piston valve as in claim 1, in which the piston is formed with an extension provided with one or more projections or a flange adapted to make contact with the packing or with a ring abutting thereon, whereby, on removal of the piston from the valve body, the packing is withdrawn with it.

3. In a piston valve as in either of the preceding claims and having a gland-nut, the provision in the bush through which the operating spindle screws of a recess adapted to receive a U-shaped bar, for the purpose specified.

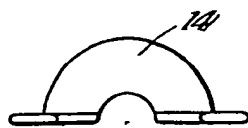
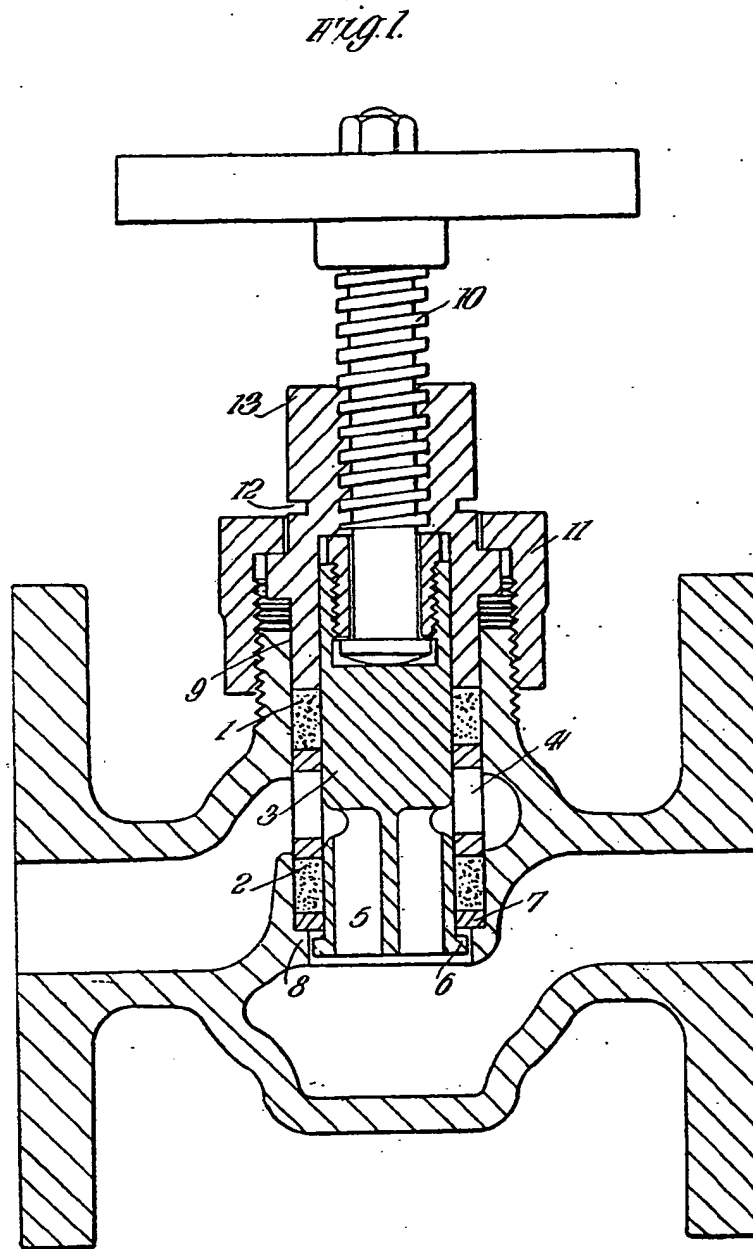
4. A piston valve substantially as hereinbefore described with reference to the accompanying drawing.

Dated this 6th day of March, 1929.

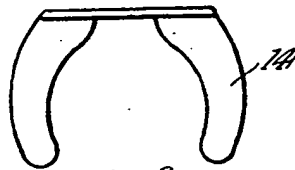
HASELTINE, LAKE & Co.,  
28, Southampton Buildings, London,  
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Agents for the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale.]



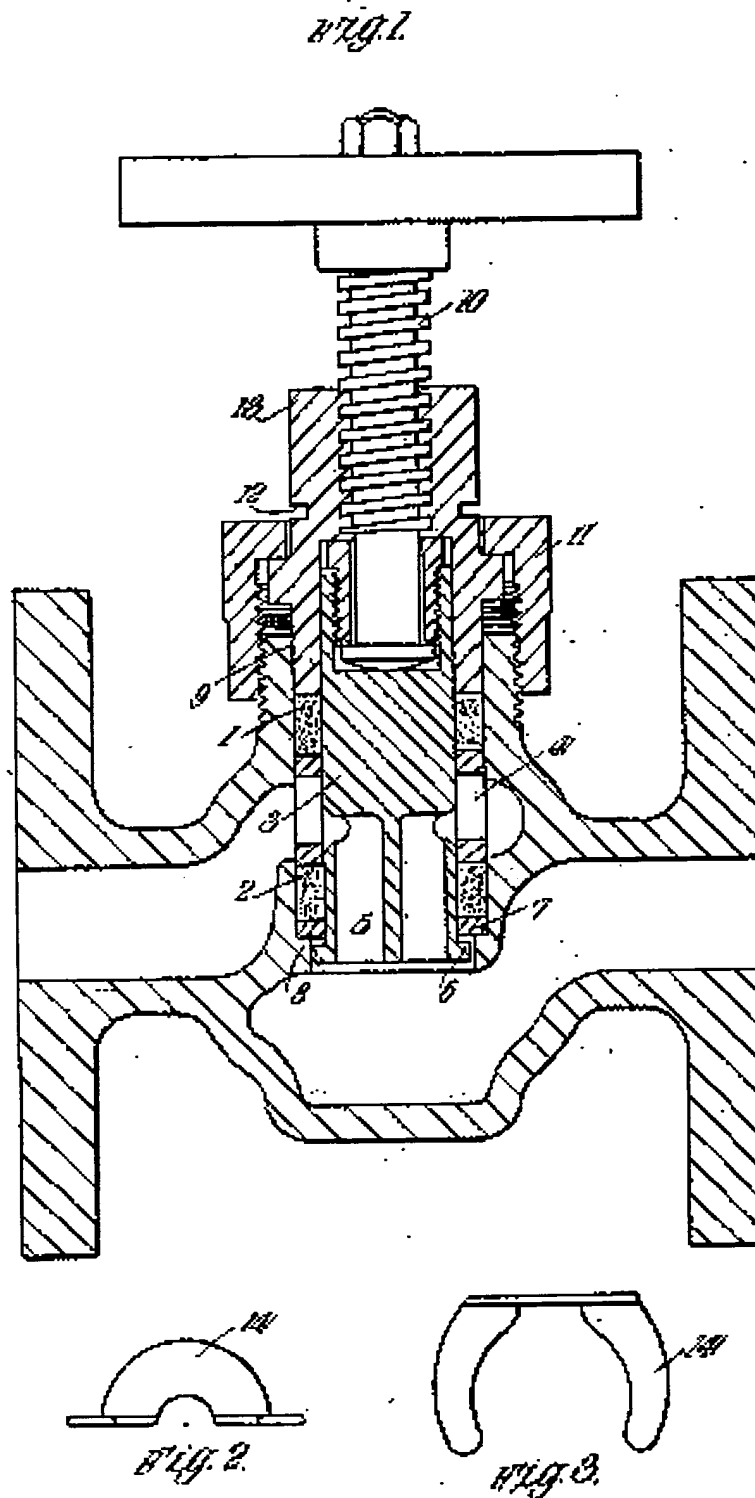
*Fig. 2.*



*Fig. 3.*

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